PATENT APPLICATION
Attorney Docket No. Q58469

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

#11/BM
8-23-02
(1 of 3)

In re application of

Jacques JOLLY, et al.

Appln. No.: 09/532,968

Confirmation No.: 8709

Filed: March 22, 2000

Docket No: Q58469

Group Art Unit: 1731

Examiner: John M. Hoffmann

For: A METHOD OF MANUFACTURING AN OPTICAL FIBER PREFORM AND MORE PARTICULARLY A PREFORM OF LARGE DIAMETER

APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the provisions of 37 C.F.R. § 1.192, Appellants submit the following:

I. REAL PARTY IN INTEREST

The real party in interest is the Assignee, ALCATEL. An Assignment was filed in this application and recorded at reel 010688, frame 0655.

II. RELATED APPEALS AND INTERFERENCES

To the best of the undersigned's knowledge, there are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-17 are all the claims pending in the application. Claims 1-8 are rejected under 35 U.S.C. § 112, first paragraph. Claims 9-17 are withdrawn from consideration, because the Examiner believes that "[t]hey are in combination-subcombination relationship" in which "the

combination does not need the steps of the subcombination." Office Action of March 21, 2002 at page 2. Appellants requested the Examiner to reconsider the restriction requirement on the basis that (1) the Examiner misconstrues the clear meaning of the claims, and (2) there would be no serious burden to examining claims 9-17 in addition to claims 1-8. The Examiner made the restriction final in the Advisory Action of June 5, 2002. However, Appellants invite the Board to review these claims as well.

Claims 1-8 are indicated as containing subject matter that is not disclosed in the prior art. Specifically, the Examiner acknowledges that the "prior art does not teach reducing layers such that the prior layers have a smaller reduction in length - the claims are not deemed as being allowable because of the 35 U.S.C. 112 rejection (above)." Office Action of March 21, 2002 at page 4.

IV. STATUS OF AMENDMENTS

A first non-final Office Action (Paper No. 4) was mailed November 29, 2001, rejecting claims 1-8 under 35 U.S.C. § 112, second paragraph, rejecting claims 1, 2 and 5-8 on prior art grounds under 35 U.S.C. § 102(b) in view of Campion (EP 0 831 070/USP 5,979,189), and rejecting claims 3 and 4 on prior art grounds under 35 U.S.C. §103(a) in view of Campion. An Amendment was filed on February 27, 2002, amending claims 1 and 6, and adding claims 9-17. A final Office Action (Paper No. 7) was mailed on March 21, 2002, rejecting claims 1-8 under 35 U.S.C. § 112, first paragraph only, and withdrawing claims 9-17 from consideration. A Response was filed on May 13, 2002, requesting the Examiner to reconsider the rejection of claims 1-8 and the restriction of claims 9-17. An Advisory Action (Paper No. 9) was mailed on

June 5, 2002, maintaining the rejection of claims 1-8 and making the restriction requirement final. A Notice of Appeal was filed on June 21, 2002.

V. SUMMARY OF THE INVENTION

The subject matter of the invention relates to a method of manufacturing or building up, i.e. "overcladding," an optical fiber preform. See, e.g., Specification at page 3, lines 2-18. As stated in Appellants' Specification, the method of separating a preform according to a conventional method as disclosed, for example, in Campion (EP-A- 0 831 070), involves the steps of: (1) heating and drawing the preform to achieve a reduced diameter segment of the material 10; (2) passing a torch over the preform from the end closest the segment 10 to eliminate deposited silica; and (3) returning the torch to the place of separation 9 to rapidly complete separation. See, Specification at page 2, lines 3-19. Therefore, the conventional method involves performing the separation in two steps, between which a glazing stage is interposed. See Specification at page 2, lines 20-23. As Appellants further explain in their Specification, this conventional method is especially not suitable for large diameter preforms. See Specification at page 2, lines 24-29.

Appellants' invention, on the other hand, teaches that fewer concentric layers of silica should be deposited on the preform in the zone where the preform is to be separated. See, e.g., Specification at page 3, lines 19-36. As a result, the preform has a reduced diameter portion defining a step near one end of the preform. Claim 1 is illustrative of this feature:

> said method interposing a one-ended reduction in the length of at least one layer, during a pass and starting from one new layer that

> is an intermediate layer, ... said one-ended reduction in layer length leading to a limitation of the thickness of material deposited on one of the end-pieces and on a limited-length preform zone that is longitudinally adjacent to said end-piece, at the level set by the layer deposited immediately prior to said one-ended reduction, and
>
> <u>wherein the one-ended reduction in the length is greater than a reduction in length of an immediate prior layer from a second to the immediate prior layer</u>.

Therefore, Appellants' method requires a reduction in the number of layers over the recited length. The underlined portion of quoted claim 1 above was added to the claim by amendment to clarify what was already implicitly, if not explicitly, recited by the claim. In particular, this language clarifies the meaning of the one-ended reduction in length, which is described in one illustrative example, at page 8, lines 3-10 of the Specification with reference to Fig. 2:

> <u>A one-ended reduction in layer length is imposed by a corresponding reduction in the relative displacement between the torch and the preform.</u> This one-ended reduction is performed during an overcladding pass during which the preform 1' being overclad is overclad with a layer of material. The reduction is, for example, set to a value L1 lying in the range 10 millimeters to 200 millimeters. . . .

> The deposition of the concentric layers is then continued on the preform [1'] starting from the layer whose length has been reduced at one end . . . .

(emphasis added).

The resulting reduced diameter segment 10' makes it easier to carry out the separation of the preform, especially for large diameter preforms. See Specification at page 10, lines 25-33.

VI. ISSUES

Whether current claims 1-8 contain subject matter that was not described in the Specification in such a way as to reasonably convey that the inventors had possession of the claimed invention at the time the application was filed, thereby justifying a rejection of these claims under 35 U.S.C. § 112, first paragraph. More specifically, whether the amendment to claim 1 finds support in the Appellants' disclosure as originally filed.

VII. GROUPING OF CLAIMS

For the purposes of this appeal only, claims 1-8 stand or fall together.

VIII. ARGUMENTS

In rejecting claims 1-6, the Examiner takes the position that these claims contain subject matter that was not described in the Specification in such a way as to reasonably convey that the inventors had possession of the claimed invention at the time the application was filed. Specifically, the Examiner states that

> Claim 1 has been amended to require that "the one ended reduction in the length is greater than a reduction in length of an immediate prior layer from a second to the immediate prior layer."

> First it is noted there is no explicit support for this limitation. Second, it is clear from the drawings that each layer is no longer than any of the previous (prior) layers. Thus when a layer is cut (given a reduction in length) any layer below it (i.e. made prior to it) is also cut, but more of that prior layer is cut off. Since more of the prior layers is cut (reduced in length), the reduction in length of the prior layers is greater than the reduction length of a non-"prior" length. This is the opposite of what is now being claimed.

Office Action of March 21, 2001 at page 3. Appellants strongly disagree.

As stated in Appellants' response to the Office Action, and maintained herein, the Examiner's rejection makes clear that he has simply misconstrued the claim in a way that is neither reasonable nor in agreement with Applicants' Specification. When properly construed, claim 1 finds explicit support in the Specification.

The Examiner bases his rejection on a claim construction that appears to require cutting a layer. However, claim 1 makes no mention of a cutting operation. Rather, claim 1 is directed to building up the preform in a certain manner prior to the cleaving step illustrated in Fig. 3. Specifically, claim 1 is directed to the formation of a preform having the segment 10' illustrated in Fig. 2.

Figure 2 and the corresponding discussion at page 8 of Applicants' Specification describe a method in which the right side of the preform 1' expands from the end piece 6b' to a diameter D1 by successively adding layers of material to the preform, wherein each successive layer is shorter in the axial direction than the previous layer so as to form the expanding conical section at the far right end. Next, a one-ended reduction in layer length is interposed and set to a value L1 to form the cylindrical segment 10'. Afterwards, additional successive layers are added to enlarge the preform to its largest diameter.

Therefore, as recited in claim 1, the one-ended reduction in the length L1 is greater than the previous successive reductions in lengths of the prior layers that formed the expanding conical section at the far right end, and for which there is explicit support in the application as originally filed.

In the Advisory Action of June 5, 2002, the Examiner states with respect to the Section 112, first paragraph, rejection that

> Whereas the Office is to interpret claims in light of the specification; this does not mean inserting limitations from the specification into the claims. It is argued that the reduction in length is not cutting the layer. The Office understands a layer length can be reduced by other steps such as shrinkage and abrading, and that the reduction is not limited to cutting, the Office used the term "cutting" because that is how the prior reduced the length of layers. Although the specification indicates that the reduction occurs by shortening the pass of a subsequent layer, there is no reason to believe that the subsequent layer is the old layer which is now shortened. ON the contrar (sic), that shorter layer is a completely new layer with a new length. Most importantly, whereas Applicant holds that the claims have been misconstrued with what is disclosed in the specification -- the specification cannot redefine terms such that claims should now take on means completely inconsistent with normal English usage. A reduction in the length of a layer clearly means to have a layer (with a length) and then reduce the length. It is completely unfair for the Office to allow claims based on English usage that is repugnant to the way that those of ordinary skill in the art uses (sic) English.

Advisory Action of June 5, 2002 at page 2 (emphasis added).

Whatever claim construction the Examiner intends to adopt that deviates from the clear meaning of the claims and the Specification as explained above, is not reasonable and is inconsistent with how one skilled in the art would understand the claims.

Appellants note that the Manual Of Patent Examining Procedure ("MPEP") dictates that "[d]uring patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the Specification.'" MPEP Section 2111 (emphasis added). That is, the claim must be read in light of Appellants' Specification, not in a vacuum. The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

As evident from the Advisory Action, however, the Examiner seems to have taken pains to construe the claims based on an unreasonable interpretation that is inconsistent with the plain meaning of the claims, the Specification, and the interpretation that would be made by those skilled in the art. Moreover, there is absolutely nothing in the Appellants' claim construction that is "repugnant" to how one of ordinary skill in the art would interpret the claim.

In fact, it is the Examiner that appears to be reading limitations into the claims that are not found in the claims or the specification. That is, the Examiner's construction ignores the specification altogether and is based on some hypothetical art in which the reduction in length of an entire preform can be performed by cutting, and, therefore, the recitation regarding the reduction in length of a layer is to be construed to require cutting the preform. There is absolutely no legal or reasonable basis for such claim construction. Claim 1 does not recite any cutting step. Rather the claim requires "interposing a one-ended reduction in the length of at least one layer, during a pass . . . wherein the one ended reduction in the length is greater than a reduction in length of an immediate prior layer from a second to the immediate prior layer."

Interposing, or to place in an intervening position, cannot reasonably be construed as cutting. Furthermore, the requirement that the "one ended reduction in the length is greater than a reduction in length of an immediate prior layer from a second to the immediate prior layer," simply refers to the amount of reduction (relative movement of plasma torch and preform). Again, no cutting operation is performed.

In summary, the recited interposing step requires the addition of a layer that is shortened to create a step-like segment; not the cutting of the layer, which would be contrary to the plain language of the claims and meaningless in light of the Specification. Indeed, Appellants' Specification as originally filed makes clear throughout that the problem being addressed by the present invention is to avoid the problem in the conventional art when performing separation, for example, of large diameter preforms. See, e.g., Specification at page 2, lines 24-37.

Appellants note that the Examiner did not reject the claims under 35 U.S.C. § 112, first paragraph, for failure to provide an enabling disclosure. Thus, the Examiner apparently considers the disclosure sufficient "to enable any person skilled in the art . . . to make and use" the invention. 35 U.S.C. § 112. In other words, the Examiner appears to accept as fact that one of ordinary skill in the art could make and use the invention with the disclosure provided. Appellants are in agreement with this proposition.

Appellants also note that the Examiner did not reject the claims under 35 U.S.C. § 112, first paragraph, for failure to set forth the best mode contemplated by the inventors. Thus, the Examiner apparently considers that the disclosure sufficiently sets forth the best mode. Appellants are in agreement with this proposition.

For all of the foregoing reasons, Appellants respectfully submit that claims 1-6 contain only subject matter that was described in the Specification in such a way as to reasonably convey that the inventors had possession of the claimed invention at the time the application was filed and request that the pending rejection of these claims be reversed.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Raja Saliba

Raja Saliba
Registration No. 43,078

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: August 21, 2002

APPENDIX

CLAIMS 1-8 ON APPEAL:

Claim 1. A method of building up an optical fiber preform in an installation provided with means enabling a preform held horizontally at ends of the preform between two mounting points by supporting the ends of the preform with end pieces for rotation about an axis of the preform and for relative movement in a direction parallel to the axis of the preform said installation also being provided with heater means for heating the preform by means of a plasma torch, which heater means is disposed radially relative to said preform and is associated with material supply means, so as to enable the preform to be manufactured in successive passes corresponding to the preform and the torch being displaced relative to each other, certain ones of the passes carried out with material being supplied and certain other ones of the passes being carried out without material being supplied, so that each successive pass leads to a new layer of material being deposited on the preform when material is supplied and to the most recent layer deposited being glazed when material is not supplied, said method interposing a one-ended reduction in the length of at least one layer, during a pass and starting from one new layer that is an intermediate layer, while a succession of concentric layers of material are being deposited on the preform in a manner such that the respective lengths of the layers, which lengths are determined by the relative displacements between the torch and the preform, are progressively shortened as a result of a progressive reduction in the lengths of the displacements, so that the thickness of deposited material that covers the preform and a portion of each of the end-pieces

decreases uniformly towards the ends, said one-ended reduction in layer length leading to a limitation of the thickness of material deposited on one of the end-pieces and on a limited-length preform zone that is longitudinally adjacent to said end-piece, at the level set by the layer deposited immediately prior to said one-ended reduction, and

wherein the one ended reduction in the length is greater than a reduction in length of an immediate prior layer from a second to the immediate prior layer.

Claim 2. A method according to claim 1, wherein the one-ended reduction is performed after depositing a determined number of concentric layers leading to a given preform diameter.

Claim 3. A method according to claim 2, wherein the given preform diameter, above which a one-ended reduction in layer length is performed is greater than the diameter of the end-piece in question, and less than 70 millimeters.

Claim 4. A method according to claim 1, wherein provision is made for the one-ended reduction in layer length to lie in the range 10 millimeters to 200 millimeters.

Claim 5. A method according to claim 1, providing a reduction in layer length that satisfies a linear relationship, at least beyond the layer whose length is reduced at one end and that is deposited first, and at that end of the preform at which said reduction is provided.

Claim 6. A method according to claim 1, providing a reduction in layer length that satisfies a non-linear decreasing relationship, at least beyond the layer whose length is reduced at one end and that is deposited first, and at that end of the preform at which said reduction is provided, and wherein the non-linear decreasing relationship is satisfied prior to a first drawing of the preform for separation from one of the end-pieces.

Claim 7. A method according to claim 1, including at least one hot drawing operation performed to separate a preform from one of the end-pieces in said limited-length preform zone which is adjacent to said end-piece, after said succession of layers required for forming the preform has been deposited.

Claim 8. A method according to claim 1, including a hot-drawing operation performed in two steps, separated by a preform glazing operation, in said limited-length preform zone which is adjacent to an end-piece so as to separate the preform and said end-piece, the first drawing step being associated with heating to the core causing softening by melting in said limited-length preform zone, and producing a reduction in diameter, the second step also being associated with heating to the core causing softening by melting and achieving full separation.